

A proposal for prototype package of green affordable home: using fast track wall system

Abstract

Adopting from CIDB annual report, Malaysian housing demands is 4% per year (280,000 establishments per year equals to nearly 2,800 projects); it is while, the figure only is highlighting first-time house buyer's statistics. Furthermore, understanding population growth statistics provides us to expect even more housing demand in near future. Considering previewed statements, dynamic increasing demands for residential building construction enforce us to enhance the main project measurement including project's "time", "cost" and "quality" while there is construction elimination in use of "human resource", and "machineries". Based on that, there is some initiative to go through industrial building system methods proposed by CIDB highlighted in strategic plan. More than that also, it is important to aid building construction to decrease its environmental defects. These environmental defects can be understood based under "construction based defects" (it includes construction, expansions and renovation of the building)". Recently, there is enrichment of construction in managing cost, time and quality, using Fast-Track Wall (FTW). Regarding the previewed statements, this study is to consider FTW as the case for green affordable housing. Thus the aim of this study is to develop a prototype green affordable home which can be applied in Malaysia considering humid region environments. Therefore, the study is proposed to conduct research in three research teams. First research team tasks to investigate green materials in the FTW-affordable home. Second research team tasks to investigate green energy requirement in the FTW-affordable home. And, third research team tasks to investigate green social requirement in the FTW-affordable home. Relatively, each team will follow the research objective including methodology in three research phases. The phases include; Phase I (Preliminary Investigation), Phase II (Desk and laboratory study), Phase III (Full-scale test study). Significance of this study are; the development of "Green" affordable home suite to the "local" requirement of the "humid region", as a "sustainable" construction solution (fast, environmental friendly, cost efficient and productive). In fact, final product would enhance the construction of affordable housing in Malaysia a sustainable manner.